

REMARKS

In this Office Action, the Examiner objected to Claim 24 as being an independent claim written in dependent format. Claims 1 - 8, 10 - 17 and 20 - 24 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1 - 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Danford-Klein et al. in view of Blinn et al.

In response to the objection to Claim 24, Applicants have rewritten Claim 24 in independent form. Thus, withdrawal of the objection is kindly requested.

Regarding the rejection to Claims 1 - 8, 10 - 17 and 20 - 24 under 35 U.S.C. §101 as being directed to non-statutory subject matter, Applicants have amended Claims 1 and 10 to redirect them from "providing a calculation" to "displaying a result to a user" and added an element (i.e., displaying the apportioned result to the user) to the claims. Due to this amendment, Applicants submit that the claims fall under statutory subject matter and respectfully request withdrawal of the §101 rejection.

By this amendment, Claims 1 - 24 remain pending in the Application. For the reasons stated more fully below, Applicants submit that the pending claims are allowable over the applied references. Hence, reconsideration, allowance and passage to issue are respectfully requested.

As disclosed in the SPECIFICATION, discount calculation rules may use a total amount being spent as a look up value into a table that specifies that amounts between \$50 and \$100 qualify for a \$5 discount from a pretax purchase price, and that amounts of \$100 or more qualify for a 10% discount. Likewise, shipping charge calculation rules may use a total shipping weight as a look up value into a table that specifies that amounts up to 10 lbs. incur a flat shipping charge of \$2, and amounts more than 10 lbs. and over incur an additional shipping charge of \$0.20 per lb. Further, taxation calculation rules may specify that items whose unit price is less than \$30 are exempt from tax, but items whose unit price is \$30 or more are taxed at a 7% tax rate. A scale may be

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associated with a particular currency, or it may be necessary to produce calculation results in one of several currencies.

Commerce system programmers will be more productive if they can reuse a common framework of objects and methods to implement different kinds of calculation scales. They should be able to tailor the way the scale behaves, without having to reprogram the entire look up operation.

The calculation scale of the present invention as described further herein provides a generic framework that can be used to implement different kinds of calculation scales by varying methods that define how to look up a value in the scale, and how to use the look up result to determine a calculation result. The framework is flexible enough to handle a wide variety of business and legal requirements without programming, by choosing from a list of installed over-ridable method implementations. When business or legal requirements require a programming change, many such changes can be limited to programming additional over-ridable method implementations and installing them into the commerce system, without having to make any changes to existing programming.

The invention is set forth in claims of varying scopes of which Claim 1 is illustrative.

1. A method of displaying a result to a user, the result being provided by a calculation scale framework for use in an electronic commerce environment comprising a computer network, the electronic commerce environment defining a calculation rule, and a set of commerce objects, the method comprising:

providing a calculation scale comprising calculation ranges, ***each said calculation range being either cumulative or non-cumulative*** and having an associated range start number, ***an optional currency attribute, which when present specifies the currency of the range start numbers, and an optional unit of measure attribute, which when present specifies the unit of measure for the range start numbers;***

providing a calculation scale look up interface, a base monetary value, a result multiplier and a set of mathematical weights corresponding to the set of commerce objects;

providing a range look up result interface to return a calculation result;

providing a multiplication product of the calculation result and the result multiplier;

providing a total result, the total result being provided by adding the multiplication product to a previously determined sum of multiplication products when the calculation range is cumulative and by replacing the previously determined multiplication product when the calculation range is non-cumulative;

apportioning the total result to the set of commerce objects in proportion to the set of mathematical weights; and

displaying the apportioned result. (Emphasis added.)

Applicants submit that the claims are patentable over the applied references.

Danford-Klein et al. purport to teach a method for processing rating requests in a computerized rating system. According to the teachings of Danford-Klein et al., a rating engine operable to receive rating requests associated with a carrier contract is provided. The rating engine includes a base rating engine object to calculate a linehaul rate in response to the rating request. Rating data for a particular carrier contract may be grouped together such that the rating data contained in a particular rating engine object is valid only for a date range that applies to all data contained in the object. The grouping of rating data by effective date avoids the redundancy of storing date information at the line level, thus lowering storage requirements and increasing calculation speed.

However, Danford-Klein et al. do not teach the steps of providing a calculation scale comprising calculation ranges, ***each said calculation range being either cumulative or non-cumulative*** and having an associated range start number, ***an optional currency attribute, which if present specifies the*** CA920000062US1

currency of the range start numbers, and an optional unit of measure attribute, which if present specifies the unit of measure for the range start numbers; ***providing a calculation scale look up interface, a base monetary value, a result multiplier and a set of mathematical weights corresponding to the set of commerce objects; providing a total result, the total result being provided by adding the multiplication product to a previously determined sum of multiplication products when the calculation range is cumulative and by replacing the previously determined multiplication product when the calculation range is non-cumulative***; and ***apportioning the total result to the set of commerce objects in proportion to the set of mathematical weights***.

The Examiner asserted that in col. 12, line 64 to col. 13, line 13 Danford-Klein et al. teach the step of providing the calculation scale with the calculation ranges. Applicants disagree.

In col. 12, line 64 to col. 13, line 13, Danford-Klein et al. disclose the following:

Rating engines are designed to process different rate structures which include geography matrices, mileage bands, weight bands and complex combinations of these matrices and bands. These base rating engines contain the actual price data used to calculate the price for linehaul service. The price data is made up of an index type, origin/destination type or band type, a unit of measure, and effective dates. In addition to these specific base rating engines, there are rating engines which are collections of rating engines. Such rating engines are known as collective rating engines and include the selective, additive, multiplier, minimum, and maximum engines. Collective rating engines do not contain actual price data but instead contain other rating engines which could be base rating engines, as well as other collective rating engines. Collective rating

engines also include the methods for uniquely processing the associated collection of rating engines.

But note that in the cited passage, Danford-Klein et al. do not even suggest ***an optional currency attribute, which when present specifies the currency of the range start numbers*** as stated in the claimed invention. Put differently, the teachings of Danford-Klein et al. do not provide for calculations in different currency denominations. By contrast the present invention provides for such calculations (see .

The Examiner further asserted that in col. 15, lines 43 - 63 Danford-Klein et al. teach the step of providing the calculation scale lookup interface. Again, Applicants disagree.

In col. 15, lines 43 – 63, Danford-Klein et al. disclose that:

Another feature of the present invention that allows fast and efficient calculation of linehaul service rates is the grouping of rating data by the dates on which that data is effective. According to this feature of the invention, a rating engine specifies a start date and an end date for which the rating data associated with that object is valid. If the ship date does not fall within the date range, then that rating engine will return a rate not found message in response to a request to calculate a rate. In this embodiment, the secondary prioritization of the list of rating engines in a collective rating engine is performed in inverse order by start date. Accordingly, rating engines with equal priority codes having start dates that are later in time have a higher priority than rating engines with start dates that are earlier in time. Grouping of rate data according to effective dates allows the data to be located quickly, and also avoids replication of data. Because there may be a large number of items of rating data that have identical start and end dates, creating a rating engine containing rates with the same

start date and end date avoids the need to store a start date and end date with each item of rating data.

Clearly, the above passage is related to dates and valid date ranges. Contrary to the Examiner's assertion, therefore, the passage does not teach, show or so much as suggest the step of ***providing a calculation scale look up interface, a base monetary value, a result multiplier and a set of mathematical weights corresponding to the set of commerce objects*** as in the claimed invention.

The Examiner admitted that Danford-Klein et al. do not teach the step of providing the total result but asserted that Blinn et al. do provide such step in col. 29, lines 50 – 59. Applicants continue to disagree.

Blinn et al. purport to teach a method for processing electronic order forms. Specifically, Blinn et al. disclose an electronic merchandising system that allows merchants to create electronic orders which are easily adaptable for different sales situations. For example, the electronic order has flexible blackboards which allow merchants to add sales information with what are called key-value pairs. The key-value pairs may include special shipping information, unique billing information, gift wrap information, monogram information, etc. Each order form contains as many key-value pairs as are necessary to define a sales transaction. In other words, merchants can customize the electronic merchandising system for diverse sales transactions by adding new key-value pairs or deleting existing key-value pairs.

However, Blinn et al. do not teach the step of ***providing a total result, the total result being provided by adding the multiplication product to a previously determined sum of multiplication products when the calculation range is cumulative and by replacing the previously determined multiplication product when the calculation range is non-cumulative*** as claimed.

The Examiner asserted that Blinn et al. teach this step in col. 29, lines 50 – 59. Applicants disagree. In col. 29, lines 50 – 59, Blinn et al. disclose the following:

The components in the order total stage 384 compute the total charge for the order 124. The preferred order total default component 1262 sets the order.sub.-- total key-value pair to the sum of the oadjust.sub.-- subtotal key-value pair, the shipping.sub.-- total key-value pair, the tax.sub.-- total key-value pair, and the handling.sub.-- total key-value pair.

It is clear that in this passage, Blinn et al. do not teach the step of **replacing the previously determined multiplication product when the calculation range is non-cumulative** as in the claimed invention.

Applicants note that the Examiner did not state whether or not Danford-Klein et al. or Blinn et al. or both Danford-Klein et al. and Blinn et al. teach the step of ***apportioning the total result to the set of commerce objects in proportion to the set of mathematical weights***. Therefore, Applicants submit that the Examiner fails to show that the claims are unpatentable over the references.

In any event, since neither Danford-Klein et al. nor Blinn et al. teach the elements of the claims that the Examiner asserted that they each did, Applicants submit that Claim 1, as well as its dependent claims, is allowable over the cited reference. The other independent claims (i.e., Claims 10 and 24) and their dependent claims, which all incorporate the emboldened-italicized limitations of the above-reproduced Claim 1 are also allowable. Consequently, Applicants once more respectfully request reconsideration, allowance and passage to issue of the claims in the application.

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Respectfully Submitted

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